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⑮ 発明の名称 ラップトップ型パーソナルコンピュータ

⑯ 特 願 平1-200634

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明 細 書

1. 発明の名称

ラップトップ型パーソナルコンピュータ

2. 特許請求の範囲

ポインティングデバイスを本体に着脱自在に接続可能なラップトップ型パーソナルコンピュータにおいて、前記ポインティングデバイスを取り出し自在に収納する収納部を前記本体内の所定位置に設け、前記収納部に格納された前記ポインティングデバイスを隠蔽する開閉部材を具備したことを特徴とするラップトップ型パーソナルコンピュータ。

3. 発明の詳細な説明

(産業上の利用分野)

この発明は、ポインティングデバイスから入力される座標情報を処理可能なラップトップ型パーソナルコンピュータに関するものである。

(従来の技術)

近年の電子技術の進歩により、大型の平面ディスプレイを備えた、いわゆるラップトップ型の電

子機器が数多く製品化されている。

第2図は従来のラップトップ型パーソナルコンピュータ装置の構成を説明する外観斜視図であり、1は本体で、キーボード3から入力されたキーコードを処理して表示パネル2に入力情報を表示する等のデータ処理を実行する制御ボードが収納されている。4はマウス等のポインティングデバイスで、本体1にケーブル5を介して接続されている。

なお、ケーブル5は本体1の接続コネクタに着脱自在に接続される構成となっている。

このように構成された装置において、例えば図形処理、コマンド処理を実行する際に、表示パネル2に表示されたカーソル(図示しない)を上記ポインティングデバイス4により指示し、位置情報、コマンドを入力して、所望とするデータを処理している。

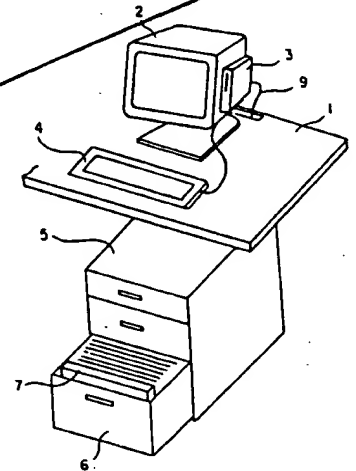
ところで、近年のアプリケーションプログラムは、データ処理において、煩雑なキー入力操作を軽減するため、ポインティングデバイス4を利用

(54) INFORMATION PROCESSOR

(11) 3-63809 (A) (43) 19.3.1991 (19) JP
(21) Appl. No. 64-199380 (22) 2.8.1989
(71) HITACHI LTD (72) TORU HIGASHIHARA(3)
(51) Int. Cl. G06F1/16

PURPOSE: To improve operability by providing a display device, a floppy disk driving device, and a controller, mounting the floppy disk driving device on the display device, and arranging the controller in a drawer.

CONSTITUTION: The floppy disk driving device 3 mounted loadably/unloadably freely on the side plane of a cathode ray tube display device 2 via a holding tool such as a sucker, etc., is connected to the cathode ray tube display device 2 with a power source signal line 9, and furthermore, the controller 6 is arranged in the drawer 6. At such a case, a display picture can be easily observed because the position of the display picture of the display device 2 is prevented from being heightened, and also, a working space can be prevented from being narrowed because an installing area is small. Furthermore, a space occupied by the lower leg of an operator remains widely, and also, an operation to insert a floppy disk to the floppy disk driving device 3 or to take it out from the device 3 can be easily performed. In such a way, the operability can be improved.

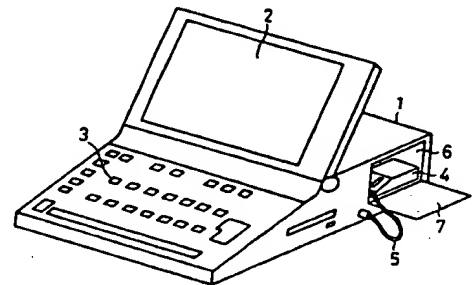


(54) LAPTOP TYPE PERSONAL COMPUTER

(11) 3-63810 (A) (43) 19.3.1991 (19) JP
(21) Appl. No. 64-200634 (22) 2.8.1989
(71) MITSUBISHI ELECTRIC CORP (72) YOSHINORI MIZUTANI(1)
(51) Int. Cl. G06F1/16, G06F3/033

PURPOSE: To carry a pointing device without impairing an appearance by providing a housing part to house the pointing device in such a way that it can be taken out freely at a prescribed position in a main body, and providing an opening/closing member to hide the pointing device housed in the housing part.

CONSTITUTION: The housing part 6 is provided at a part where is the side plane of the main body 1 and where is a space by which no influence is applied on a control board, etc., and an opening/closing cover 7 which forms the opening/closing member is provided, and a locking mechanism which prevents the pointing device jumping out the housing part 6 due to shock when it is carried is provided. Also, the frontage of the housing part 6 is comprised so as to be shared as, for example, a depository to house a floppy disk sheet, in which the pointing device 4 or the floppy disk sheet can be deposited. In such a way, the pointing device 4 can be carried without impairing the appearance integrally with a laptop type personal computer.

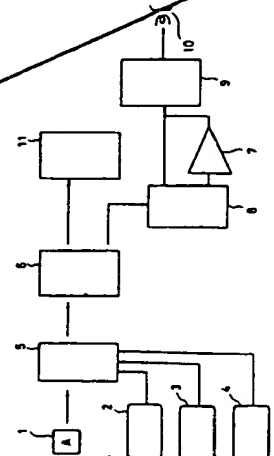


(54) KEYBOARD INPUT DEVICE

(11) 3-63811 (A) (43) 19.3.1991 (19) JP
(21) Appl. No. 64-200685 (22) 2.8.1989
(71) MITSUBISHI ELECTRIC CORP (72) NAOYUKI HOSHI
(51) Int. Cl. G06F3/02

PURPOSE: To easily confirm whether input exactly performed by providing a buffer where an inputted character code is accumulated transiently, a buffer control part, a voice ROM to convert character input to a voice signal, a speaker, and a selection key to switch an output mode.

CONSTITUTION: Character data is inputted with an input key 1, and a character code corresponding to the data is generated at a code generating part 5, and a control signal outgoing part 6 transmits a control signal to the buffer control part 8 based on encoded key depression information. When the character data is key-inputted and a voice key 2 is activated, the state of a buffer control key 3 is checked, and when it is inactivated, the inputted character code is converted to the voice signal with the voice ROM 9, then, it is outputted in voice. Also, when the buffer control key 3 is activated, the character code is accumulated in the buffer 7 transiently, and when a voice conversion key 4 is activated, the character code accumulated in the buffer is outputted in voice. In such a way, it is possible to confirm mis-input with an auditory sense.



Partial Translation of Japanese Laid-Open Patent Application No. 3-63810

Lap-top Type Personal Computer

Publication date: Mar.19, 1991

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SPECIFICATION

1. TITLE OF THE INVENTION

Lap-top Type Personal Computer

2. CLAIM

A lap-top type personal computer which can freely connect or disconnect a pointing device to or from the body, wherein an accommodating section is provided at the predetermined position within said body to freely accommodate or take out said pointing device and an opening/closing member is also provided to said accommodating section to hide said pointing device stored in said accommodating section.

lines 7 of upper right column of page 2 - lines 8 left of column of page 3

[Means for Solving the Problems]

The lap-top type personal computer of the present invention is provided, at the predetermined position within the body, with an accommodating section to accommodate a pointing device to freely take out and is also provided with an opening/closing member to hide the pointing device stored in the accommodating section.

[Operation]

In the present invention, the pointing device can be taken out for use from the accommodating section by opening the opening/closing member and can also be accommodated to the accommodating section and the opening/closing member is then closed for the transportation. Namely, when the computer is transported, the pointing device is accommodated within the body.

[Preferred Embodiment]

Fig. 1 is a perspective view for explaining a structure of a lap-top type personal computer to show an embodiment of the present invention. The elements like those of Fig. 2 are designated by the like reference numerals.

In Fig. 1, numeral 6 designates an accommodating section provided, for example, within a vacant space (different position and size depending on a type of model) not giving any influence on a control board, etc. at a side surface of the body 1. This vacant space is provided with an opening/closing cover 7 as the opening/closing member and is also provided with a lock mechanism not illustrated so that the pointing device 4 is never taken out from the accommodating section 6 due to the impact generated when a computer is transported. The width of the accommodating section 6 is different depending on a type of model and the

accommodating section is structured, for example, as the space which can also be used in common as a stock area to accommodate floppy disk sheets (smaller than 3.5 inch size) as the external recording means. Therefore, the pointing device 4 or floppy disk sheets can be stored in this stock area. Moreover, the lock mechanism not illustrated may be provided as a mechanical or electrical canceling mechanism which can be canceled by the keying operation on the keyboard 3 when the main power source is turned ON. Moreover, it is also allowed that a display panel 2 is structured to display, when the power source is turned ON, the object (PD, or FD, etc.) stored in the stock area by receiving a sensor output which indicates the member being accommodated in the accommodating section 6.

[Effect of the Invention]

As explained above, since the present invention has provided an accommodating section to accommodate to freely take out a pointing device to the predetermined position and also provided an opening/closing member to hide the pointing device accommodated within the accommodating section, the pointing device which is required for execution of applications can be integrally accommodated to a lap-top type personal computer without disordering the appearance. Therefore, unlike the prior art, unfavorable labor to transport the pointing device in separation from the body can no longer be required and discontent manipulation due to no-accompaniment of the pointing device can be eliminated.

4. BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a perspective view for explaining a structure of a lap-top type personal computer showing an embodiment of the present invention. Fig. 2 is a perspective view for explaining a structure of a lap-top type personal computer of the related art.

In these figures, numeral 1 designates a body; 2, a display panel; 3, keyboard; 4, a pointing device; 5, a cable; 6, an accommodating section; 7, an opening/ closing cover;

The same or like elements are designated by the same reference numerals.